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AUTHOR Smith, Theresa Y.
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ABSTRACT

Retention and graduation rates of underrepresented minority students were studied during 1985-91 with first-time freshman cohorts at 67 U.S. colleges and universities. Data were also collected from 17 institutions for science, engineering, and mathematics (SEM) majors by race and gender. Research areas included: headcounts, average admission test scores, retention rates after one and two years, and graduation and continuation rates within 4, 5, and 6 years. Findings included: underrepresented minorities constituted 14 percent of 1985 entering freshman and 19 percent of 1991 freshmen; 6-year tracking of the 1985 and 1986 cohorts of 312,795 first-time freshmen indicated that 80 percent continued to the second year and 69 percent progressed to the third year of college; after the first year, retention rates were 73 percent for Blacks, 72 percent for Hispanics, and 69 percent for American Indians compared with 81 percent for the other ethnic groups; after the second year, the retention rates were about 59 percent for Blacks, 62 percent for Hispanics, and 54 percent for American Indians. Additional information is provided on the effects of gender and institutional selectivity on retention and graduation rates. (Contains 28 references.) (SW)

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THE RETENTION STATUS OF UNDERREPRESENTED MINORITY STUDENTS: An Analysis of Survey Results from Sixty-Seven U.S. Colleges and Universities

Theresa Y. Smith

Director, Office of Institutional Research
University of Oklahoma
660 Parrington Oval
Norman, OK 73019
(405) 325-3681

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Jean Endo
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The Retention Status of Underrepresented Minority Students:

An Analysis of Survey Results from Sixty-Seven U. S. Colleges and Universities

Abstract

This paper studies the retention and graduation rates of underrepresented minority students using survey results of 67 U.S. colleges and universities. The characteristics of these institutions vary from research to baccalaureate, from public to private, from predominately white to historically black and from highly selective to liberal in admission standards. The survey instrument collects retention and graduation rates over a period of six years for each of the 1985-91 first-time freshman cohorts. In addition to the retention and graduation rates for the various racial and gender subgroups, the survey also collects data from 17 institutions for science, engineering and mathematics (SEM) majors by race and gender. The study analyzes the retention status of underrepresented minorities with a special focus on retention and student selectivity; it further examines discipline-specific as well as institution-wide graduation rates of minority SEM majors.

The Retention Status of Underrepresented Minority Students:

An Analysis of Survey Results from Sixty-Seven U. S. Colleges and Universities

BACKGROUND

One of the major changes in higher education over the last decade has been the growth in racial diversity in the student population. From 1982 to 1992, minority enrollment grew at a faster pace than whites. The representation of minorities in higher education increased from 17% in 1982 to 22% in 1992. The number of minority college students increased from 2.06 million to 3.16 million, with more than 70% of the growth occurring in the second half of the decade (NCES, Table 2, 1994). Demographic projections indicate that the accelerated rate of increase for minorities will continue. The American Council on Education (1988) estimated in a report that "By the year 2000, one-third of all school-age children will fall into this category (minorities)" (p. 2).

With the exception of Asian Americans, levels of educational attainment, income and other measures of social well-being are lower for minorities than whites (ACE, 1988). Blacks, Hispanics and American Indians are underrepresented in higher education as a result of lower high school graduation rates and lower college attendance rates. The disparity of their participation is further amplified by the fact that minority students complete their college degrees at rates far lower than their white counterparts.

Another important demographic change in the coming decades is that "By 2010, the job structure in the U. S. will be even more two-tailed, with about 30 to 40 percent of all jobs requiring a college education and paying very well, while 30 percent or more will continue to be 'working poor' jobs for high school dropouts" (Hodgkinson, 1992, p. 12). Under this new job structure, levels of educational attainment will be an even more important factor in determining the social economic status of future citizens. If the current disparity in educational attainment continues and if the projected increases in the minority population actually take place, the

combined consequences will be an overall increase in the under-educated workforce and an even wider economic gap between minorities and whites.

As an increasingly diverse population emerges, full participation of minority citizens is not only an imperative for social justice, it is also a necessity in serving the nation's self-interest. The Commission on Minority Participation in Education and American Life believes that "The plain and simple fact is that the full participation of minority citizens is vital to our survival as a free and prosperous nation. Inevitably, our fate will be shared" (ACE, 1988, p. 30). The commission challenges institutions of higher education "...to renew and strengthen their efforts to increase minority recruitment, retention, and graduation" (ACE, 1988, p. 21).

In recognition of this important mission, colleges, universities and other educational agencies have stepped up their efforts in improving retention and graduation rates for all students and particularly minority students. In recent years, there have been many initiatives in developing new retention and graduation studies and in establishing comparative benchmarks for assessing campus student retention. As part of these efforts, a longitudinal retention survey was developed for annual data exchange in the Big Eight, the Big Ten and the Southern Universities Group (SUG) institutions in 1989. With the sponsorship of grants awarded by the National Science Foundation (NSF), the survey activity was later expanded to include participating institutions in the following NSF programs: the Alabama Alliance for Minority Participation (AAMP), the Mississippi Alliance for Minority Participation (MAMP) and the Research Careers for Minority Scholars (RCMS). The University of Oklahoma has served as the coordinating institution for these survey groups.

The Survey Instrument

The 1993 survey was designed to collect longitudinal retention and graduation data for the 1985-91 first-time freshman cohort groups and each of the subgroups by gender and race. The data elements surveyed for each cohort group included headcount of students, average admission test scores, retention rates after one year and after two years, and graduation and continuation

rates within four, five and six years.

The Purposes of the Retention Survey

The general purpose of the retention survey is to develop a retention database that can be used to describe the current retention status and to monitor the rate of changes in individual institutions and their respective peer groups. Ultimately, the goal is to provide retention data that may trigger further institutional actions and thus improve the retention and graduation rates of all students, more specifically, the underrepresented minorities.

The Survey Participating Institutions

This study selected data from 67 institutions that provided full responses to all racial subgroups surveyed (Appendix 1). These institutions represent a subgroup of the nation's diverse colleges and universities. They differ significantly in mission, control, selectivity, size, location, racial mix and gender composition. As the first example of these differences, the diverse missions classify these institutions into nine separate categories, ranging from research, doctoral, master, baccalaureate, to specialty institutions (Carnegie Foundation, 1994). Second, the admission test scores characterize the levels of selectivity in these institutions from highly selective to liberal in admission standards. Third, in this group of 67 institutions, there are 13 historically black colleges and universities (HBCUs), three women's colleges and 12 private institutions. Finally, the size of the student populations in these institutions varies greatly. In fall 1991, for example, the number of students enrolled in the 67 institutions ranged from small colleges with fewer than 1,000 students to large universities with more than 50,000 students.

It should be noted that the institutions included in this study were selected from six separately organized subgroups of institutions; they were not obtained by a random sampling method. The findings of this study, therefore, do not necessarily represent those for the total college population in more than 1,500 baccalaureate degree-granting institutions in the nation. However, efforts will be made to compare the results of this study with national benchmark statistics when they are available.

FINDINGS BASED ON SURVEY RESULTS FROM 67 INSTITUTIONS

The First-Time Freshman Population, Fall 1985 to Fall 1991

On average, approximately 156,800 first-time freshmen entered the 67 institutions each year. From 1985 to 1991, the overall first-time freshman enrollment decreased by 6% from 155,869 to 147,116 with the highest enrollment reaching 166,850 in 1988. During the same period, the number of underrepresented minorities entering these institutions rose by 30%, from 21,402 to 27,830. Among the underrepresented minorities, American Indians had the largest percentage increase of 72%, from 538 to 926; followed by 53% for Hispanics, from 4,774 to 7,286; and a 22% increase for blacks, from 16,090 to 19,618. In comparison, there was a 11% decline in first-time freshmen for the other combined group of whites, Asian Americans and nonresident aliens.

These changes resulted in a greater percentage of the underrepresented minorities in the 67 institutions. In 1985, underrepresented minorities constituted 14% of the entering freshman population; by 1991, their representation increased to 19%. Progress in minority participation was made by all underrepresented minority groups. Blacks as a percentage of first-time freshmen increased from 10% in 1985 to 13% in 1991; Hispanics, from 3% to 5%; and American Indians, from .3% to .6%. It should be noted that the percentage representation of each minority group in these 67 institutions is comparable to that of the national norm.

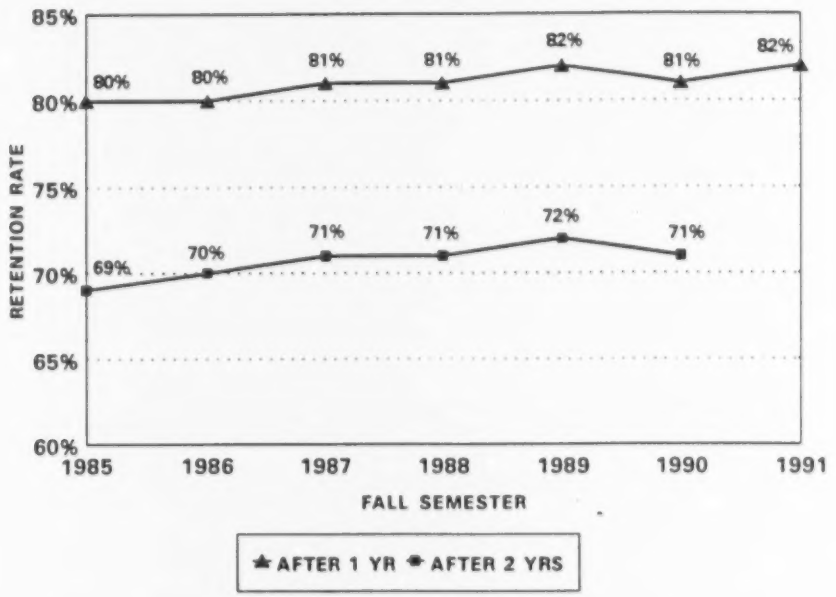
Faster-paced increases in American Indians and Hispanics combined with a relatively smaller increase for blacks in those years also affected the racial composition of the underrepresented minorities. In 1985, 75% of the underrepresented first-time freshmen were blacks; the percentage decreased to 70% in 1991. Conversely, Hispanics as a percentage of the underrepresented first-time freshmen increased from 22% in 1985 to 26% in 1991.

Retention and Graduation Rates by Race

Similar to results documented in many other national studies (Cope, 1978; Tinto, 1982; Astin, 1993), retention rates in these 67 institutions over time have been fairly static. In general, there have been moderate increases in retention rates for all racial subgroups. The overall first-year

retention rates for the 1985-91 first-time freshman cohorts ranged from 80% to 82% with an average of 81%. Second-year retention rates for the 1985-90 cohorts reflect a moderate and gradual increase from 69% for the 1985 cohort to 71% for the 1991 cohort with an average near 71% (Figure 1). If this trend of moderate increase continues, completion rates are projected to be one to two percentage points higher in the next few years.

FIGURE 1. RETENTION RATES OF FIRST-TIME FRESHMEN IN 67 U.S. COLLEGES AND UNIVERSITIES, FALL SEMESTER 1985-1991 COHORTS



A complete six-year tracking of the 1985 and 1986 cohorts of 312,795 first-time freshmen indicated that 80% of the students continued to the second year and 69% progressed to the third year of college. Significant differences exist among the subgroups of students by race. Retention rates are lower for each of the underrepresented minority groups when compared with the other ethnic groups of whites, Asian Americans and nonresident aliens. After the first year, the retention rates were 73% for blacks, 72% for Hispanics and 69% for American Indians compared with 81% for the other ethnic groups. After the second year, the gap in retention rates grew even wider; approximately 59% of the blacks, 62% of the Hispanics and 54% of the American Indians

persisted to the third year of college, compared with 71% for the other ethnic groups. When tracking progressed toward the fifth year, 47% of the blacks, 52% of the Hispanics and 40% of the American Indians persisted in these institutions, compared with 65% for the other ethnic groups.

As a consequence of higher dropout rates for the underrepresented minorities, smaller percentages of these students completed their baccalaureate degrees. Graduation rates within six years for the 1985 and 1986 underrepresented minority cohort groups were 36% for blacks, 40% for Hispanics, 33% for American Indians, compared with 59% for the other ethnic groups and an overall graduation rate of 56%. Comparable national statistics indicate that completion rates are between 26% and 30% for blacks and Hispanics, and about 50% for the other ethnic groups (NCES, Table 302,1993a). Another set of national statistics (NCAA, 1994) reported that of the 2.17 million first-time freshmen entering the Division I institutions between 1984 and 1988, 56% completed their degrees within six years. The report also indicated large differences in graduation rates among students by race. The six-year graduation rates were 34% for blacks, 43% for Hispanics, 32% for American Indians, 57% for whites, 64% for Asian Americans and 51% for nonresident aliens.

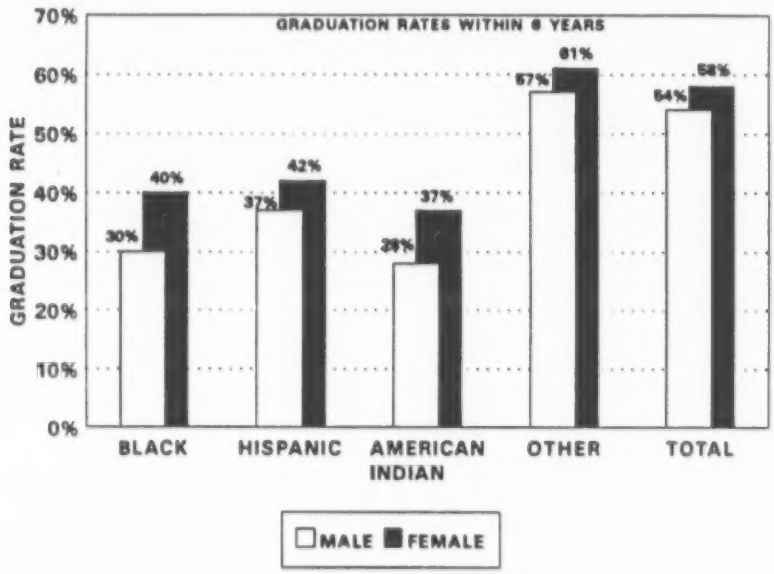
Retention and Graduation Rates by Gender

Retention studies completed prior to 1980 consistently found that more men than women persisted to graduation (Cope, 1978). Cope, however, stated that the feminist movement and other related social changes could result in a change in degree completion rates for males and females. Since then, studies have reported different findings with a higher college graduation rate for women rather than men (Dey & Astin, 1989).

This study found that retention and gradation rates were consistently higher for females in each of the 1985-91 cohort groups and subgroups. Complete six-year tracking of the 1985 and 1986 cohorts concluded that 58% of the females and 54% of the males graduated within six years. The respective graduation rates in each of the ethnic groups for females and males were:

blacks, 40% and 30%; Hispanics, 42% and 37%; American Indians, 37% and 28%; and other ethnic groups, 61% and 57% (Figure 2). Differences in graduation rates between males and females were greater among the underrepresented minority groups. There was a disparity of nine to ten percentage points between females and males for blacks and American Indians and a gap of five percentage points for Hispanics.

FIGURE 2. GRADUATION RATES OF FIRST-TIME FRESHMEN IN 67 U.S. COLLEGES AND UNIVERSITIES, FALL 1985 AND 1986 COHORTS



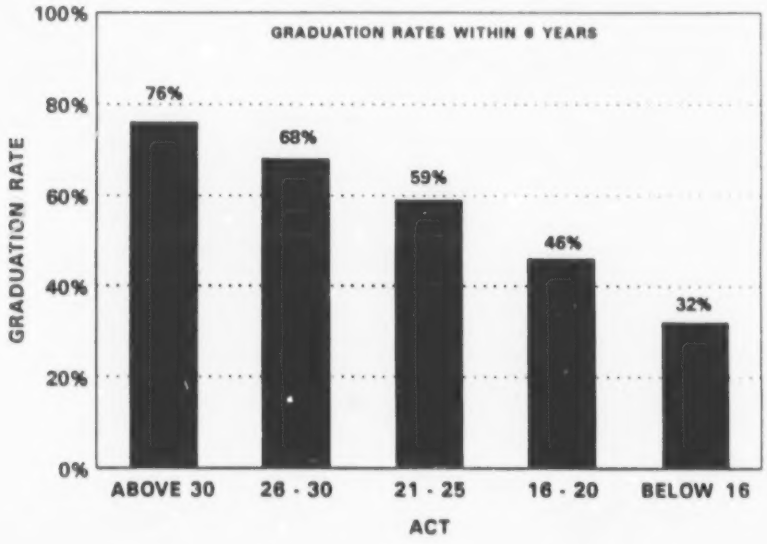
Retention and Graduation Rates and Institutional Selectivity

Institutional selectivity is an important factor in student retention (Cope, 1978; Lenning, 1982; Noel & Levitz, 1983); the more selective institutions tend to have higher student retention rates. Dey and Astin (1982) observed that "With few exceptions, the higher the selectivity of an institution (as measured by admissions test scores) the higher the retention rate." As an illustration, data from the ACT Institutional Data Profile (ACT, 1994) documented that graduation rates decrease as levels of institutional selectivity become lower; the decline in fifth-year graduation rates for public doctoral institutions ranged from 69% for highly selective to 53% for selective, 42% for traditional and 38-40% for liberal and open admission institutions. (Note:

The definitions for various levels of selectivity are: highly selective--the majority of accepted freshmen were ranked in the top 10% of high school graduating class; selective--the majority of accepted freshmen were ranked in the top 25% of high school graduating class; traditional--the majority of accepted freshmen were ranked in the top 50% of high school graduating class; liberal--some freshmen are from the lower half of high school graduating class; open--all high school graduates are accepted up to the limit of capacity.)

A comparison based on data in seven of the Big Eight institutions also concluded with the same finding. The six-year graduation rates of the 1983-87 first-time freshmen ranged from 76% for the subgroup with an ACT average of 31 or higher to 32% for the subgroup with an ACT average below 16 (Figure 3).

FIGURE 3. SIX-YEAR GRADUATION RATES OF FIRST-TIME FRESHMEN IN THE BIG EIGHT UNIVERSITIES, FALL SEMESTERS, 1983 - 1986, AGGREGATED



The Highly Selective, the Selective and the Less Selective Groups

In order to enhance the analysis of retention data, the 67 institutions were divided into three subgroups: 20 highly selective, 21 selective and 26 less selective institutions. The classification was based on average admissions test scores for the 1990 and 1991 cohorts. Institutions in the

highly selective group had an average enhanced ACT composite above 23.9 or an average SAT composite score higher than 1,050; the selective group, an average ACT score between 22 and 24 or an average SAT score between 950 and 1,050; and the less selective group, an average ACT score below 22 or an average SAT score below 950. On the average, 69,260 first-time freshmen entered the highly selective institutions each year, compared with 65,021 for the selective institutions and 22,488 for the less selective institutions. The percentage distribution of first-time freshmen ranged from 44% for the highly selective institutions to 42% for the selective institutions and 14% for the less selective institutions.

Participation Rates of Underrepresented Minorities

In addition to lower high school graduation rates and lower college participation rates for the underrepresented minorities, Hauptman and Smith (1994, p.88) noted that "Another concern with current patterns of participation in higher education is that African American and Hispanic students tend to attend certain types of institutions disproportionately." According to national enrollment statistics (NCES, Table 2, 1994), while 39% of all college students are in two-year institutions, 51% of the underrepresented minorities are enrolled in two-year institutions.

This study finds a similar disparity. The enrollment in less selective institutions consists of a far higher percentage of the underrepresented minorities. For example, 14% of all first-time freshmen were in the less selective institutions, but 50% of blacks, 41% of Hispanics and 22% of the American Indians were in the less selective institutions. Underrepresented minorities constituted only 10% of the first-time freshman population in the highly selective and selective institutions, but they represented 52% of the less selective institutions (Table 1).

Graduation Rates of Underrepresented Minorities and Institutional Selectivity

Consistent with many previous research results, the higher the selectivity of an institution, the higher the graduation rate. More than 67% of the 1985 and 1986 first-time freshmen graduated within six years from the highly selective institutions; the graduation rate decreased to 52% for students in the selective institutions and 32% for students in the less selective

institutions. Similar observations can also be made for each of the underrepresented minority groups. For example, six-year graduation rates for blacks were 47% in the highly selective institutions, 38% in the selective institutions and 30% in the less selective institutions; the respective graduation rates for Hispanics were 55%, 42% and 24%.

Graduation rates for the underrepresented minorities are consistently lower for all three groups of institutions of varying selectivity. However, when comparisons of student retention by race are controlled by selectivity, the differences are less pronounced. In the less selective group, for example, the six-year graduation rate for blacks was 30%, five percentage points below the rate of 35% for the other ethnic groups of whites and Asian Americans (Table 2).

TABLE 1. Percentage Distribution of First–Time Freshmen Fall 1985 – Fall 1991, 67 U.S. Colleges and Universities (See Appendix 2)

Race	Highly Selective	Selective	Less Selective	Total
Underrepresented Minority	9.9%	10.1%	52.4%	16.1%
Blacks	5.8%	7.7%	40.0%	11.5%
Hispanics	3.8%	1.8%	11.7%	4.1%
American Indians	0.3%	0.6%	0.7%	0.5%
Other Ethnic Groups	90.1%	89.9%	47.6%	83.9%
Total	100.0%	100.0%	100.0%	100.0%

TABLE 2. Six–Year Graduation Rates in 67 U.S. Colleges and Universities by Selectivity and Race, 1985 and 1986 Cohorts (See Appendices 3–6)

Race	Highly Selective	Selective	Less Selective	Total
Underrepresented Minority	50%	38%	28%	37%
Blacks	47%	38%	30%	36%
Hispanics	55%	42%	24%	40%
American Indians	54%	28%	18%	33%
Other Ethnic Groups	69%	54%	35%	59%
Total	67%	52%	32%	56%

Underrepresented Minorities in Science, Engineering and Mathematics (SEM)

Thomas (1991, p. 61) stated that "...black students in comparison to whites, are highly underrepresented in the natural and technical sciences among college majors, college graduates, and employed workers." In recent years, several national programs were initiated by the National Science foundation "...to vigorously recruit minorities into the SEM pipeline and retain them in the SEM disciplines through graduate school leading to faculty position" (McHenry, 1992). To assist in monitoring the progress of minority SEM majors, an effort was made to collect retention data of entering freshman SEM majors from institutions in the RCMS program (Research Career for Minority Scholars, a program sponsored by the National Science Foundation).

Seventeen of the RCMS institutions provided discipline-specific retention data for their SEM majors. These 17 institutions represent seven public research, four private research, two public HBCUs, three private HBCUs and one private college (Appendix 1). On average, about 36,000 new freshmen entered the 17 institutions each year. Approximately 31-32% of these students chose to major in an SEM discipline. In this group of 17 institutions, blacks and Hispanics were better represented in the SEM disciplines than they were in the overall entering freshman population. For example, in 1991, blacks constituted 15% of the total first-time freshman population, but 17% of the SEM majors were blacks; Hispanics constituted 7% of the total first-time freshman population but 9% of the freshman SEM majors were Hispanics. Unlike blacks and Hispanics, American Indians appear to be more underrepresented in the SEM disciplines; American Indians represented .9% of the total first-time freshman population but only .5% of the freshman SEM majors in the 17 institutions.

Institution-Wide Graduation Rates of SEM Majors

In general, entering freshman SEM majors persisted to graduation at a higher rate than non-SEM majors. This was true for the combined group of whites, Asian Americans and nonresident aliens; 61% of the SEM majors and 56% of the non-SEM majors graduated within six years. It was especially true for the subgroup of blacks; 44% of the black entering freshman SEM majors

graduated in six years, compared with 39% for their non-SEM peers. The same finding, however, could not be applied to the other minority subgroups. The six-year graduation rates for Hispanic and American Indian SEM majors were actually lower than the rates for non-SEM majors (Table 3).

TABLE 3. Institution–Wide Graduation Rates Within 6 Years
Fall 1985 and 1986 Cohorts, 17 RCMS Institutions

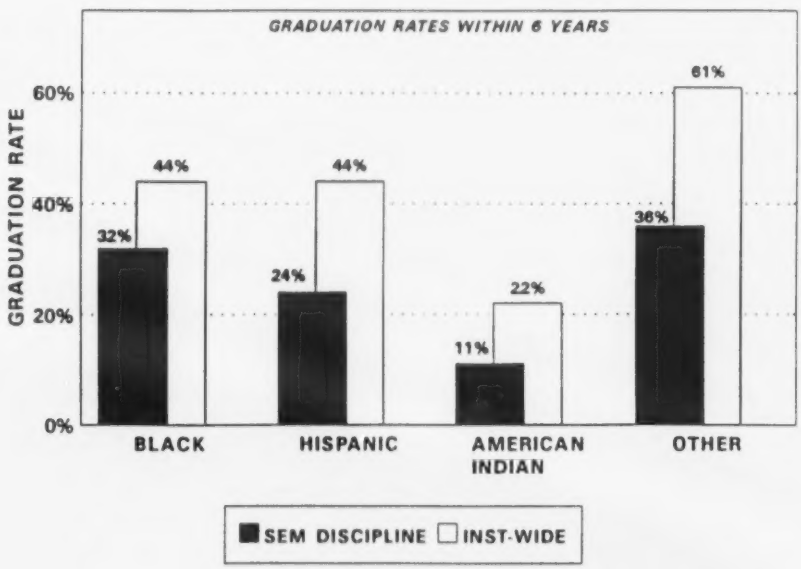
Race	SEM Majors	Non–SEM Majors
Blacks	44%	39%
Hispanics	44%	48%
American Indians	22%	31%
Other Ethnic Groups	61%	56%
Total	57%	53%

Graduation Rates of SEM Majors Within SEM Disciplines

While 57% of the entering freshman SEM majors completed their degrees in six years, only 35% persisted to graduate from one of the SEM fields. The SEM-specific gradation rates for different racial subgroups were 32% for blacks, 24% for Hispanics and 11% for American Indians, compared with 36% for the other ethnic groups. Black SEM majors led the underrepresented minority groups in graduating from an SEM discipline. Even though the institution-wide graduation rates for black and Hispanic SEM majors were both at the same rate of 44%, a higher percentage of blacks (32%) than Hispanics (24%) graduated within the SEM disciplines (Figure 4).

The result of a literature review indicates that there is an absence of national research findings related to discipline-specific retention and graduation rates of students. Therefore, it should be noted that the findings of this study on the graduation rates of SEM majors are based on limited data from 17 institutions; they may not reflect the national norm.

FIGURE 4. GRADUATION RATES OF SEM MAJORS IN 17 RCMS INSTITUTIONS, FALL 1985 AND 1986 COHORTS



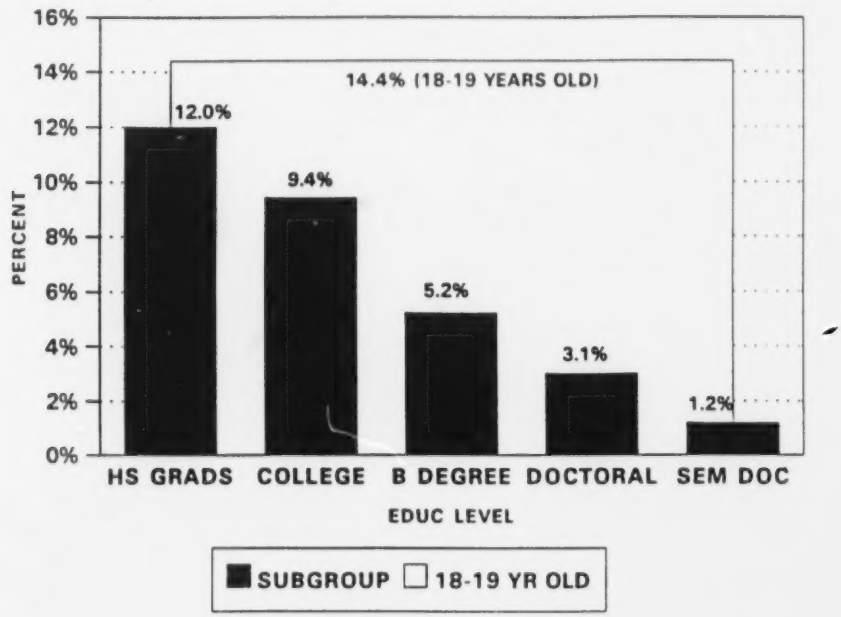
CONCLUSIONS

The representation of blacks, Hispanics, and American Indians decreases dramatically as they progress to higher levels of education. For example, blacks constituted 14% of the 18- to 19-year-old population in 1983, but only 12% of the high school graduates, 9% of the college students and 5% of the 1988-89 baccalaureate degree recipients. Low completion rates for the underrepresented minorities lead to a larger disparity in their opportunities to participate in advanced graduate studies (Hill, 1992). National statistics (NCES, 1993b) indicated that only 3% of the doctoral degrees and 1.2% of the SEM doctoral degrees were awarded to blacks in 1990-91 (Figure 5).

Based on data from the 67 institutions included in this study, the six-year graduation rates for the 1985 and 1986 entering freshmen were 37% for underrepresented minorities and 59% for whites, a difference of 22 percentage points between these two groups. This finding confirms the problem of widening disparities in the representation of blacks, Hispanics and

American Indians from entry to graduation. Underrepresented minorities constituted 14% of the 1985 and 1986 first-time freshman population, yet they accounted for only 9% of those who graduated within a period of six years.

FIGURE 5. THE PERCENTAGE OF BLACKS AT VARIOUS EDUCATION LEVELS



Lower graduation rates for underrepresented minorities may be attributed to their relatively lower levels of academic preparedness. "Although a number of other entering freshman characteristics add significantly to the prediction of retention, these four variables (a student's high school grades, admissions test scores, sex and race) account for the bulk of the variance in retention..." (Astin, 1993, p. 2). National admissions test results show significant gaps between underrepresented minorities and whites (SAT, 1994; ACT, 1994). In examining the retention data from the 67 institutions, this study also found that levels of academic preparedness were generally lower for the underrepresented minorities than their white peers. Consequently, a disproportionately larger percentage of the underrepresented minorities attended the less selective institutions with typically lower graduation rates. Moreover, even for those who attended the

more selective institutions, their average admissions test scores were below the average for all students.

To achieve full participation of minorities, it is important for colleges and universities to ensure an equitable number of minority graduates by strengthening the efforts in recruitment and retention. However, it is equally important to acknowledge that "The aptitude for higher education and the ability to succeed in college and graduate school do not materialize suddenly at age 18; they are developed in childhood" (ACE, 1992, p.14). Therefore, full participation of minorities will require all sectors of the society--families, schools and communities--to adequately prepare and develop individuals prior to their entry to college.

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Appendix 1

SIXTY–SEVEN PARTICIPATING COLLEGES AND UNIVERSITIES

Alabama A&M U
Alabama State U
Alcorn State U
Allegheny College
Auburn U
Bennett College
Chicago State U
Clemson U
CUNY City College
Delta State U
* Florida State U
* Harvey Mudd College
Indiana U, Bloomington
Iowa State U
* Jackson State U
Kansas State U
Louisiana State U
Michigan State U
Miles College
Mississippi State U
Mississippi U for Women
Mississippi Valley State U
North Carolina State U
Northern Arizona U
Oakwood College
Ohio State U, Main Campus
* Oklahoma State U
* Penn State U
Princeton U
* South Carolina State U
* Southern Illinois U
* Spelman College
Stillman College
* Talladega College
* Texas A&M U
Texas Tech U
Tougaloo College
* Tuskegee U
U of Alabama, Birmingham
U of Alabama, Huntsville
U of Alabama, Tuscaloosa
U of Arkansas
* U of California, Riverside
U of California, San Diego
U of Colorado, Boulder
* U of Guam
U of Houston
U of Iowa
U of Kansas
* U of Maryland, Baltimore County
U of Maryland, College Park
U of Michigan, Ann Arbor
U of Minnesota, Twin Cities
U of Mississippi
U of Missouri, Columbia
U of North Carolina, Chapel Hill
* U of Oklahoma
U of South Carolina
U of Southern Mississippi
U of Tennessee
* U of Texas, Austin
U of Texas, El Paso
* U of Texas, San Antonio
U of Virginia
U of Wisconsin, Madison
Virginia Tech
Xavier U of Louisiana

* The institutions that provided retention data for science, engineering and mathematics majors.

Appendix 2

HEADCOUNT OF FIRST–TIME FRESHMEN BY YEAR

IN 67 U.S. COLLEGES AND UNIVERSITIES

Fall Semesters 1985–1991

Cohort	Black			Hispanic			American Indian			Other Ethnic Groups			Total		
Year	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Total
1985	6,376	9,714	16,090	2,449	2,325	4,774	253	285	538	69,622	64,845	134,467	78,700	77,169	155,869
1986	6,177	9,295	15,472	2,715	2,583	5,298	307	296	603	69,554	65,999	135,553	78,753	78,173	156,926
1987	6,836	10,044	16,880	3,087	3,017	6,104	287	336	623	69,832	66,310	136,142	80,042	79,707	159,749
1988	7,505	11,200	18,705	3,575	3,522	7,097	369	404	773	71,824	68,451	140,275	83,273	83,577	166,850
1989	7,864	11,734	19,598	3,522	3,268	6,790	359	450	809	67,605	64,228	131,833	79,350	79,680	159,030
1990	7,852	11,840	19,692	3,807	3,724	7,531	426	500	926	63,317	60,380	123,697	75,402	76,444	151,846
1991	7,892	11,726	19,618	3,580	3,706	7,286	425	501	926	60,541	58,745	119,286	72,438	74,678	147,116
1985–91:															
Total	50,502	75,553	126,055	22,735	22,145	44,880	2,426	2,772	5,198	472,295	448,958	921,253	547,958	549,428	1,097,386
Group I	11,908	16,202	28,110	9,866	8,533	18,399	624	710	1,334	224,798	212,181	436,979	247,196	237,626	484,822
Group II	12,982	21,975	34,957	4,046	4,008	8,054	1,342	1,400	2,742	211,156	198,239	409,395	229,526	225,622	455,148
Group III	25,612	37,376	62,988	8,823	9,604	18,427	460	662	1,122	36,341	38,538	74,879	71,236	86,180	157,416

Notes: 1) The "Other Ethnic Groups" category includes Whites, Asian–Americans, and Nonresident Aliens.

2) Group I – 20 highly selective institutions (ACT Composite >24 or SAT Composite >1,050); Group II – 21 selective institutions (ACT Composite between 22 and 24 or SAT Composite between 950 and 1,050); Group III – 26 less selective institutions (ACT Composite <22 or SAT Composite <950).

Appendix 3

RETENTION/GRADUATION RATES OF FIRST-TIME FRESHMEN

IN 67 U.S. COLLEGES AND UNIVERSITIES

Fall Semesters 1985 and 1986 Combined

67 U.S. Colleges and Universities

Cohort Group	1985 & 86 1st-time Freshmen		Retention Rates		Graduation Rates		
	Headcount	Percent	After 1 Year	After 2 Years	Within 4 Yrs	Within 5 Yrs	Within 6 Yrs
Total	312,795	100.0%	79.9%	69.4%	28.5%	50.5%	56.2%
Male	157,453	50.3%	79.2%	69.2%	23.7%	47.5%	54.4%
Female	155,342	49.7%	80.7%	69.7%	33.5%	53.4%	58.1%
Black	31,562	10.1%	72.8%	58.6%	15.9%	30.8%	36.3%
Male	12,553	4.0%	71.3%	56.8%	10.2%	24.6%	30.2%
Female	19,009	6.1%	73.8%	59.9%	19.6%	35.0%	40.3%
Hispanic	10,072	3.2%	71.6%	61.5%	13.9%	31.9%	39.5%
Male	5,164	1.7%	71.3%	60.6%	11.4%	29.5%	37.2%
Female	4,908	1.6%	72.0%	62.4%	16.5%	34.4%	41.9%
American Indian	1,141	0.4%	68.5%	53.7%	12.3%	26.2%	32.8%
Male	560	0.2%	66.2%	52.4%	8.3%	21.2%	28.2%
Female	581	0.2%	69.8%	54.8%	16.2%	31.0%	37.4%
Other Ethnic	270,020	86.3%	81.1%	71.0%	30.7%	53.5%	59.3%
Male	139,176	44.5%	80.1%	70.6%	25.4%	50.4%	57.3%
Female	130,844	41.8%	82.0%	71.3%	36.3%	57.0%	61.4%

Appendix 4

RETENTION/GRADUATION RATES OF FIRST-TIME FRESHMEN

IN 20 HIGHLY SELECTIVE INSTITUTIONS

Fall Semesters 1985 and 1986 Combined

Group I – 20 Highly Selective Institutions (ACT Composite >24 or SAT Composite >1,050)

	1985 & 86 1st-time Freshmen		*Retention Rates*		*Graduation Rates*		
Cohort Group	*Headcount*	*Percent*	*After 1 Year*	*After 2 Years*	*Within 4 Yrs*	*Within 5 Yrs*	*Within 6 Yrs*
Total	139,405	100.0%	85.6%	76.8%	36.4%	61.3%	67.3%
Male	70,862	50.8%	85.0%	76.8%	30.4%	58.6%	65.7%
Female	68,543	49.2%	86.3%	76.9%	42.5%	64.8%	69.0%
Black	7,342	5.3%	80.3%	68.1%	20.2%	40.5%	46.5%
Male	3,130	2.2%	80.1%	66.8%	14.6%	34.0%	40.8%
Female	4,212	3.0%	80.6%	69.2%	24.4%	45.2%	50.9%
Hispanic	4,112	2.9%	80.1%	70.6%	22.1%	47.1%	54.7%
Male	2,178	1.6%	80.5%	70.2%	18.3%	44.9%	53.4%
Female	1,934	1.4%	79.7%	70.9%	26.4%	49.8%	56.3%
American Indian	293	0.2%	83.3%	71.0%	24.6%	45.1%	54.3%
Male	128	0.1%	82.3%	69.8%	18.6%	38.3%	49.3%
Female	165	0.1%	84.1%	71.9%	29.7%	50.3%	58.2%
Other Ethnic	127,658	91.6%	86.1%	77.4%	37.8%	63.4%	69.0%
Male	65,426	46.9%	85.3%	77.4%	31.6%	60.3%	67.3%
Female	62,232	44.6%	86.8%	77.5%	44.4%	66.7%	70.7%

Appendix 5

RETENTION/GRADUATION RATES OF FIRST-TIME FRESHMEN

IN 21 SELECTIVE INSTITUTIONS

Fall Semesters 1985 and 1986 Combined

Group II – 21 Selective Institutions (ACT Composite between 22 and 24 or SAT Composite between 950 and 1,050)

	1985 & 86 1st-time Freshmen		*Retention Rates*		*Graduation Rates*		
Group	*Headcount*	*Percent*	*After 1 Year*	*After 2 Years*	*Within 4 Yrs*	*Within 5 Yrs*	*Within 6 Yrs*
Total	132,644	100.0%	78.1%	66.9%	25.0%	46.0%	52.0%
Male	67,713	51.0%	77.3%	66.4%	20.6%	42.9%	49.9%
Female	64,931	49.0%	79.0%	67.4%	29.6%	49.2%	54.2%
Black	9,906	7.5%	74.7%	60.3%	16.4%	31.9%	38.2%
Male	3,716	2.8%	73.7%	57.7%	8.7%	23.8%	30.8%
Female	6,190	4.7%	75.2%	61.8%	21.0%	36.8%	42.6%
Hispanic	1,729	1.3%	72.3%	60.6%	17.1%	25.3%	42.2%
Male	912	0.7%	71.3%	60.0%	13.0%	32.0%	39.1%
Female	817	0.6%	73.2%	61.2%	21.5%	39.0%	45.1%
American Indian	623	0.5%	65.4%	49.9%	9.0%	22.5%	28.1%
Male	321	0.2%	63.9%	48.6%	5.6%	18.1%	24.0%
Female	302	0.2%	66.6%	51.3%	12.6%	27.1%	32.8%
Other Ethnic	120,386	90.8%	78.5%	67.6%	26.0%	47.7%	53.5%
Male	62,764	47.3%	77.5%	67.0%	21.6%	44.6%	51.4%
Female	57,622	43.4%	79.6%	68.1%	30.8%	50.9%	55.7%

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Appendix 6

RETENTION/GRADUATION RATES OF FIRST-TIME FRESHMEN

IN 26 LESS SELECTIVE INSTITUTIONS

Fall Semesters 1985 and 1986 Combined

Group III – 26 Less Selective Institutions (ACT Composite <22 or SAT Composite <950)

	1985 & 86 1st-time Freshmen		*Retention Rates*		*Graduation Rates*		
Cohort Group	*Headcount*	*Percent*	*After 1 Year*	*After 2 Years*	*Within 4 Yrs*	*Within 5 Yrs*	*Within 6 Yrs*
Total	40,746	100.0%	67.1%	53.1%	13.4%	26.5%	32.0%
Male	18,878	46.3%	65.3%	51.7%	9.5%	22.1%	28.1%
Female	21,868	53.7%	68.6%	54.4%	16.7%	30.3%	35.2%
Black	14,314	35.1%	67.7%	52.7%	13.4%	25.2%	29.7%
Male	5,707	14.0%	65.0%	50.7%	4.7%	20.0%	24.0%
Female	8,607	21.1%	69.5%	54.1%	16.4%	28.7%	33.5%
Hispanic	4,231	10.4%	63.7%	53.4%	4.6%	15.6%	23.7%
Male	2,074	5.1%	62.3%	51.1%	3.5%	12.3%	19.3%
Female	2,157	5.3%	65.1%	55.6%	5.7%	18.9%	27.9%
American Indian	225	0.6%	57.3%	42.2%	5.5%	12.0%	17.8%
Male	111	0.3%	55.9%	44.2%	4.5%	10.8%	16.2%
Female	114	0.3%	58.5%	40.3%	6.3%	13.1%	19.4%
Other Ethnic	21,976	53.9%	67.4%	53.1%	15.0%	29.5%	35.1%
Male	10,986	27.0%	66.2%	52.1%	11.0%	25.1%	31.9%
Female	10,990	27.0%	68.5%	54.0%	19.1%	34.0%	38.3%

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